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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,616	11/04/2002	Trevor James Davis		4206

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EXAMINER
JACKSON, ANDRE K

ART UNIT	PAPER NUMBER
2856	

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/065,616	Applicant(s) DAVIS ET AL.	
	Examiner Andre' K. Jackson	Art Unit 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) 20 is/are allowed.

6)☒ Claim(s) 1-14,16 and 17 is/are rejected.

7)☒ Claim(s) 15,18 and 19 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the stand-off elements, vacuum elements (claim 2) and a receiver (claim 15) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

   A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show 102 in Figure 10B as described in the specification on page 9, paragraph [0036]. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Regarding claim 7, there is no description of "a height to width ratio of at least 4" and "the scanned surface being characterized by a target separation".

Regarding claims 8 and 9, there is no description of "the target separation".

Regarding claim 15, there is no description of "generating a signal corresponding to a value" and "communicating the signal to a receiver".

Regarding claim 18, there is no description of "a deflected orientation".

Regarding claim 19, there is no description of "a protective orientation".

4. The disclosure is objected to because of the following informalities:

On page 8, paragraph [0034], line 1 "with in" should be --within--.

On page 7, paragraph [0031], line 9 "80" should have a description since it is shown in the drawing.

Appropriate correction is required.

Claim Objections

5. Claims 9,10,15 and 18 are objected to because of the following informalities:

Regarding claim 9, line 2 a --colon-- should be placed after "comprising".

Regarding claim 10, the preamble should be changed.

Regarding claim 15, line 3 --to-- should be placed after "corresponding".

Regarding claim 18, line 6 "an" should be --a-- before "deflected". Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the support pole" in line 9 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation "the adjustable stand-off elements" in line 6 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1,3,10,12-14,16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirasu et al.

Regarding claim 1, Shirasu et al. disclose an "Apparatus for examining tubular members disposed in axially parallel relationship" which has a support (3), a generally arcuate frame (4) defining an opening, a holding mechanism for temporarily fixing the position of the frame adjacent the cylindrical object (40), a connector (16) arranged between a lower portion of the support and the frame, the connector allowing pivotal movement of the frame, a sensor assembly (5) arranged on the carrier and positioned adjacent a surface of the cylindrical object and the sensor having a head where movement of the carrier causes the sensor head to move over an arcuate portion of a surface of the cylindrical object. The carrier holding the sensor is not moveable, however, the frame is moveable thus providing the same function as the moveable carrier (Figures 1 and 2).

Regarding claim 3, Shirasu et al. has a sensor actuator (39) the sensor actuator arranged and configured for fine movement of the sensor head relative to the carrier, the range of movement being sufficient to compensate for variations in positioning the carrier relative to the surface of the cylindrical object and thereby achieve a desired orientation of the sensor head and the surface of the cylindrical object (Figure 2).

Regarding claim 10, Shirasu et al. has a sensor actuator (39) the sensor actuator arranged and configured for gross movement of the sensor relative to the carrier, the range of movement being sufficient to position the sensor adjacent two distinct circumferential portions of the surface of the cylindrical object without requiring repositioning of the frame (Figure 2).

Regarding claim 12, Shirasu et al. orients a longitudinal axis of the support (3) generally parallel to a longitudinal axis of the cylindrical object, positioning the frame (4) and carrier for movement, positioning the support so that a lower portion of the support is generally perpendicular to a portion of the generally cylindrical object to be scanned, positioning the frame in a measurement orientation where the frame is generally perpendicular to the support and partially surrounds a portion of the cylindrical object, engaging the holding mechanism (16) to establish a first position of the frame relative to the generally cylindrical object, positioning the sensor adjacent an obstructed portion of the generally cylindrical

object, moving the carrier in a generally arcuate path, moving the sensor along a circumferential portion of the obstructed portion of the generally cylindrical object to define a scanned surface and sensing a property of the generally cylindrical object adjacent the scanned surface portion (Figure 2). The carrier (part that holds sensor 5) is on the frame and when moving the frame the sensor would be moved in the generally arcuate path.

Regarding claim 13, Shirasu et al. does not explicitly disclose releasing the holding mechanism and removing the apparatus from the vicinity of the generally cylindrical object. However, the holding mechanism would have to be released to remove the object to measure another object.

Regarding claim 14, Shirasu et al. does not explicitly disclose releasing the holding mechanism and repositioning the frame relative to the generally cylindrical object and re-engaging the holding mechanism to establish a second position of the frame relative to the generally cylindrical object. However, the holding mechanism must be released to reposition the frame and re-engage the holding to establish a second position.

Regarding claim 16, Shirasu et al. disclose where the carrier is positioned within the frame. The carrier can move via movement of the frame about 90 degrees along an arcuate path in a first direction (Figure

2). The carrier can also move in a second direction about 180 degrees along an arcuate path in a second direction (Figure 2).

Regarding claim 17, the invention of Shirasu et al. has the means to move the carrier via the frame about 90 degrees along the arcuate path and terminating the carrier in approximately the initial position (Figure 2).

10. Claim 15,18 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claim 20 is allowed.

Regarding claim 20, prior art found and relied upon did not disclose "where the frame end portions are moved relative to the frame base portion to form an enlarged opening" and "wherein the frame end portions are moved relative to the frame base portion to reduce the enlarged opening and complete the arcuate frame" in combination with the other limitations of the claim.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre' K. Jackson whose telephone number is (703) 305-1522. The examiner can normally be reached on Mon.-Thurs. 7AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (703) 305-4705. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

A.J.
May 30, 2003

HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800